

Atty Dkt. No.: 10004452-1  
USSN: 10/017,107

## AMENDMENTS

### IN THE CLAIMS

1. (Previously Presented) A printing system comprising:  
a pulse-jet printhead including a nozzle, a manometer and lines configured to individually connect said printhead and manometer to a fluid source or to connect said printhead and manometer to a fluid source supply exit line from said fluid source, said fluid source to be connected to a variable pressure compensation source, wherein said system is adapted to vary an output of said variable pressure compensation source to maintain a fluid level within said manometer in a predetermined range to maintain fluid pressure at said nozzle within a corresponding range.
2. (Previously Presented) The system of claim 1, further comprising said fluid source.
3. (Previously Presented) The system of claim 2, further comprising a sensor to generate a signal in response to the fluid level within said manometer, and a control unit which generates a control signal for said variable pressure compensation source in response to said sensor signal.
4. (Previously Presented) The system of claim 1, further comprising a variable pressure compensation source.
5. (Original) The system of claim 1, further comprising a first valve at an exit of said manometer.
6. - 7. (Cancelled.)
8. (Original) The system of claim 1, further comprising a print medium.

Claims 9-22. (Cancelled)

Claims 23-25. (Cancelled)

26. (Currently Amended) A method of detecting the presence of an analyte in a sample, said

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method comprising:

contacting (i) a biopolymeric array according to claim 25 having a polymeric ligand that specifically binds to said analyte, with (ii) a sample suspected of comprising said analyte under conditions sufficient for binding of said analyte to a biopolymeric ligand on said array to occur; and

detecting the presence of binding complexes on the surface of the said array to detect the presence of said analyte in said sample;

wherein said biopolymeric array is produced by a method comprising:  
providing a printing system comprising a pulse-jet printhead, a pressure gauge, a reservoir, and a fluid supply vessel, wherein said reservoir has an inlet line and an outlet line,  
said inlet line capped by a valve for connection to a fluid supply vessel and said outlet line in  
fluid communication with said printhead, wherein said pressure gauge comprises a  
manometer, and wherein said fluid supply vessel is connected to said reservoir via a supply  
vessel line connected to said valve;

connecting said fluid supply vessel to said reservoir;

opening said valve, and

feeding print medium from said fluid supply vessel to said reservoir, wherein said print  
medium is fed under pressure to said reservoir during use of said pulse-jet nozzle, and  
wherein said print medium comprises a biopolymer or precursor thereof.

27. (Original) The method according to claim 26, wherein said method further comprises a data transmission step.

28. (Original) A method according to claim 27 wherein the data is communicated to a remote location.

29. (Currently Amended) A method comprising receiving data representing a result of a reading obtained by the method of claim [27] 26.

30. (Previously Presented) A printing system comprising:  
a pulse-jet printhead including a nozzle, a manometer and lines configured to individually connect said printhead and manometer to a fluid source or to connect said printhead and manometer to a fluid source supply exit line from said fluid source, said fluid source to be connected to a variable pressure compensation source,

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wherein a first valve is provided at an exit of said manometer and a second valve is provided at an entrance to a fluid reservoir, and

wherein said system is adapted to vary an output of said variable pressure compensation source to maintain a fluid level within said manometer in a predetermined range to maintain fluid pressure at said nozzle within a corresponding range.

31. (Previously Presented) A printing system comprising:

a pulse-jet printhead including a nozzle, a manometer and lines configured to individually connect said printhead and manometer to a fluid source or to connect said printhead and manometer to a fluid source supply exit line from said fluid source, said fluid source to be connected to a variable pressure compensation source, wherein said system is adapted to vary an output of said variable pressure compensation source to maintain a fluid level within said manometer in a predetermined range to maintain fluid pressure at said nozzle within a corresponding range,

the system including a print medium comprising a biopolymer or precursor thereof.

Claims 32 -40 (Cancelled)

41. (Previously Presented) A printing system comprising:

a pulse-jet printhead including a nozzle, a manometer and lines configured to connect said printhead and manometer at a common point to a fluid source to be connected to a variable pressure compensation source, wherein said system is adapted to vary an output of said variable pressure compensation source to maintain a fluid level within said manometer in a predetermined range to maintain fluid pressure at said nozzle within a corresponding range,

the system comprising said fluid source and a supply vessel to feed a print medium to said fluid source,

wherein a first valve is provided at an exit of said manometer and a second valve is provided at an entrance to a fluid reservoir, and

wherein the system is adapted for said feeding to occur during use of said pulse jet nozzle.

42. (Currently Amended) A method of maintaining a desired pressure of a print medium at a pulse-jet nozzle comprising:

providing a system comprising a manometer and lines configured to connect said nozzle and manometer at a common point to a fluid reservoir;

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applying pressure to said fluid reservoir;  
monitoring a fluid level in said manometer;  
adjusting said pressure applied to said fluid reservoir in response to changes in said manometer level[.].  
attaching a fluid supply vessel to said fluid reservoir upon closing a first valve provided at an exit of said manometer and opening a second valve provided at an entrance to a fluid reservoir, and feeding a print medium from said fluid supply vessel to said fluid reservoir.